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Commentary

James J. McAndrews

I'm honored to speak before such a well-informed audience and after such thoughtful and intelligent speakers, and I wish to thank the Federal Reserve Bank of St. Louis for sponsoring, and especially R. Alton Gilbert for organizing, this symposium. My comments today do not necessarily represent the views of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.

The paper by Carlton and Frankel (1995) is excellent. It focuses on two issues of concern in credit card joint ventures: the collective setting of interchange fees and exclusionary restrictions on membership in the system. I agree with their conclusion that collective exclusion of competitors can harm consumers and with their estimates of the relatively weak importance of systems competition in the credit card marketplace. The evidence that Carlton and Frankel produce concerning credit card pricing in the wake of the AT&T and GM market entries is compelling.

I'll speak on three issues raised by the paper: collective setting of interchange fees, the possible benefits of duality agreements when systems competition (called end-to-end competition by Professor Economides) is imperfect and finally, the anticompetitive effects of collective restraints in associated product markets. All of these issues have a common aspect–namely, imperfections in competition between payment systems.

INTERCHANGE FEES

Carlton and Frankel explain how collectively set interchange fees can be used to generate more revenue for members of credit card systems at the expense of merchants when there are imperfections in the payment systems market. They remain "unconvinced ... whether interchange fees are, on net, a procompetitive or anticompetitive practice." It is illustrative to compare these interchange fees with those used in the purely private-sector checking system in the National Bank period of 1863–1914. The history of the National Bank system does not offer much support to the view that collectively set interchange fees were used in an anticompetitive way.

During that period, as recounted by Cannon (1908) and Spahr (1926), banks did impose interchange fees for the collection of checks. They called the fees, simply, exchange fees. The clearinghouses created in that era were organized primarily to exchange local checks and to establish a uniform set of interchange fees and collection times. The collection of out-of-town checks, known as foreign checks, was a complicated business. Because of the ad hoc nature of the many bilateral interchange fee agreements, checks would sometimes travel thousands of miles before being presented to a bank only dozens of miles from the bank of first deposit, all to avoid an interchange fee of one to one and a half percent.

Part of the Fed's mandate was to establish a national system of payment, and it succeeded, by and large, in establishing par exchange for checks quite early in its history. Par exchangeability is the same as zero interchange fees and is, of course, the desired goal of Salop (1990), which Carlton and Frankel mention. But par exchangeability came about nationally only after the establishment of the Federal Reserve System. Even local clearinghouses, according to Cannon (1908), charged positive (but uniform) interchange fees, often as little as 15 basis points, which is less than if they had been set unilaterally.

Outside the local clearinghouses, the evidence is consistent with Baxter (1983), Kauper (1988), and Gilbert (1991), who conclude that unilateral decisions on interchange fees can result in an inefficient set of fees and can lead to costly and complicated countermeasures to avoid transactions with particular members of the network. The authors attribute these inefficiencies to network economies of check clearing. The Fed, as the check network operator, was able to enforce a particular uniform fee of zero. In choosing a uniform interchange fee, the Fed was constrained by the common law history of par exchange under direct presentment. Par exchange, as mentioned previously, is the exchange of checks at par value, with no interchange fee. Based on this history, the Fed chose an interchange fee of zero. Absent that common law constraint, the Fed may have chosen a positive interchange fee. As I mentioned, the local clearinghouses set positive interchange fees.

I therefore believe that we would not see zero interchange fees in checking today had the Fed not been created. The level of fees chosen collectively by the private clearinghouses, however, was substantially below the level chosen unilaterally by banks. I believe it is unlikely that they were used anticompetitively. In any case, the arbitration by Kauper in the *First Texas Savings Association* case suggests that interchange fees that are carefully matched to cost can be upheld as legal, and I think that this decision will stand further challenges.

DUALITY IN THE CREDIT CARD SYSTEM

Carlton and Frankel argue that duality in credit card systems may contribute to a more competitive credit card market. They cite the apparently procompetitive merger of two regional ATM networks–Cash Station and Money Network. I wish to further support this thesis by reviewing evidence of greater competition within the two national ATM networks, Cirrus and Plus, following their duality agreement. In addition, I'll take a closer look at imperfections in systems competition that suggest that duality or cobranding may provide a remedy for two imperfections in ATM systems competition.

The two leading national ATM networks agreed to a limited form of duality in 1990. It was a more limited form of duality than that seen in credit card networks. For a low fee, the agreement allowed a single bank to put either network's logo on its machines, but not its cards. The growth of ATM locations affiliated with Plus or Cirrus before and after duality suggests that the arrangement was welfare enhancing. Using data supplied by Plus and Cirrus, Kauffman and Wang (1992) have fitted growth curves to the data on Plus and Cirrus ATMs from the inception of the systems in 1984 through 1992. The actual growth of ATM locations affiliated with each network exceeds the amount of growth that would have been predicted based on the preduality experience. There was no similar boost in the total number of ATMs nationally. Furthermore, transaction volume doubled for Cirrus and Plus between 1990 and 1992, whereas for regional shared networks as a whole, transaction volume increased by only 30 percent. As in credit cards, these developments can reflect either a procompetitive response of the systems under duality (and there is excellent anecdotal evidence that Cirrus in particular took advantage of duality to compete more vigorously) or an increased value of membership in each of the systems because of network externalities, or economies of ubiquity, in demand. Either interpretation is consistent with a view that duality can enhance efficiency. Given this evidence of increased output under duality, showing that duality is, on net, harmful, will require more significant evidence of harm than has been found or suggested so far.

Indeed, determining whether exclusionary rules enhance efficiency requires a careful consideration of the nature of the competition under the exclusionary rules and consideration of how this competition

would be affected by something similar to cobranding or duality or by a merger of systems.

It is often the case that the systems competition we observe in payment systems under exclusionary rules is imperfect. In ATM networks, as in the early credit card merchant processing business, there are high costs to consumers when changing networks (because of their need to switch banks to gain access at a different network) and to banks of location-based product differentiation (because networks are characterized by different machine locations). These characteristics are associated with weak incentives to compete on price. Competition among networks with exclusionary practices or rules is product-based competition; this type of competition can be inefficient.

Surprisingly, cobranding and duality can work to reduce this inefficiency by lowering the high costs of changing networks and of location-based product differentiation. By offering banks the opportunity to join both of two networks that compete, consumers need not change banks to change network usage patterns. Moreover, by giving consumers access to all of the facilities in the two networks, product differentiation is reduced and the need to compete by product differentiation is lessened. This can lead to greater incentives for price competition between the networks.

Of course, early in the development of a system, location-based product differentiation may be welfare enhancing in that it quickens the development of the system. However, the greater value consumers place on a larger network may work to hasten development without the exclusionary practices. The point that I wish to drive home is not that exclusionary rules are in all cases bad, but rather that exclusionary rules can be used to reduce price competition.

The proponents of systems competition–and Donald Baker and David Balto have been eloquent advocates of the efficiency of systems competition–have argued that it is vital to maintain systems competition. I believe that equal emphasis must be given to determining what type of competition flourishes under exclusionary rules.

The evidence that Carlton and Frankel present on the effects of the entry of AT&T and GM in the credit card market is compelling. They find significant decreases in both the average annual fees charged by Visa issuers and in credit card interest rates after the entry of AT&T and GM, which suggests that the performance of the credit card market was not competitive, despite its competitive structure. Calem and Mester (1995) investigate several hypotheses that might account for the results of Carlton and Frankel. One such hypothesis is that there are substantial costs borne by a consumer when switching credit card providers. A consumer's history with a credit card issuer can lead the issuer, if the consumer is creditworthy, to grant the consumer high credit limits. This information is private and induces a switching cost: the consumer cannot obtain such generous credit limits elsewhere. So an issuer that lowers its rates will tend to attract less creditworthy borrowers—an adverse selection problem. Ausubel (1991) and Calem and Mester (1995) find significant divergence in performance of the credit card industry from its competitive structure.

COLLECTIVE RESTRAINTS

Collective restraints in payment systems can include restraints on competition in related markets, that is, tie-ins, in addition to outright exclusion from participation. The Department of Justice, in its complaint against EPS and its MAC network, alleged that EPS engaged in tying its ATM processing to its provision of branded network access.

Another way tie-ins can yield an advantage to the owners of a payment system is discussed here. Consider a payment system with access associated with a logo and transactions processing. Suppose, furthermore, that because of the economies of ubiquity there is a monopoly in the access market; processing, however, is an activity in which there are no inherent

scale advantages. Then a payment system operator could tie the sale of processing to the sale of access, in which it has a dominant market position.

A monopoly access provider would not necessarily gain by tying processing to access because of reduced sales. However, in the case of a bank holding company joint venture that competes in the downstream retail banking market against customers of its system, the joint venture has another margin it can exploit. By tying the sale of processing to the provision of access, the joint venture can raise the processing fees above the level of cost. Accordingly, prices for the service in the retail market will rise to match the level of the transaction fee because these fees are usage sensitive.

Providing access, on the other hand, does not entail, to the extent that processing does, a usage-sensitive cost. Pricing for access then usually takes the form of card-based and machine-based fees or monthly fees. These fees are less transaction sensitive, and therefore we would not expect them to be translated into consumer pricing at the point of the transaction, but rather would expect them to be included in yearly checking account fees, a lower checking account interest rate or higher minimum checking account balances. Hence by tying processing to access, the joint venture gains control of a usage-sensitive cost that affects pricing to the ultimate consumers.

Tying processing to access allows the joint venture to *raise rivals' costs* by setting the processing fee above marginal costs. Salop and Scheffman (1983) show that raising rivals' costs allows one to gain competitive advantage over rivals. The average cost to the joint venture's affiliate banks is not affected as much because profits flow to the bank holding company owners and can be allocated to the affiliate banks. Hence the affiliates of the owners gain an advantage in the retail marketplace, over and above the profits that accrue to the owners of a successful regional brand or logo for network access.

This suggests that networks whose owners are all in-market would have a more limited incentive to exploit this margin to raise rivals' costs, whereas a network whose owners had little banking market overlap would be more apt to exploit this incentive to tie a processing service to an access monopoly.

This model would also suggest that the remedy that EPS and the Department of Justice agreed to in their consent decree–which was to allow competition in ATM processing–was appropriate. Tying the sale of any processing to system access should concern antitrust authorities, especially when the owners of the system compete in the retail market.

SUMMARY

The effects of collectively set interchange fees, duality and collective restraints on membership and associated products differ depending on the nature of competition among competing systems and depending on competition in the downstream retail banking market. In general, the features of the payment products that I've discussed in this talk, including network externalities in demand, high costs for consumers (or merchants) to change systems under exclusionary rules, opportunistic vertical integration and competition in product differentiation rather than in price, all suggest that the nature of systems competition is likely to be far from the perfectly competitive ideal and that antitrust policy will play an important continuing role in this industry. Furthermore, the results of research on duality and cobranding in credit card networks and in ATM and POS networks, both from an empirical and theoretical viewpoint, suggest that these interconnection agreements can manage both to reduce the imperfections of systems competition under exclusivity agreements and to extend the benefits of network externalities in demand.

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